

# Neonic Risk Assessments – Final Bee, Aquatics, & Terrestrial

(Clothianidin, Dinotefuran, Imidacloprid, Thiamethoxam)

Presentation for OPP OD

May X, 2019

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# Purpose

- Provide OPP upper management with an overall summary of neonic risk conclusions
- Preview of final bee risk assessments; recap of risk conclusions for aquatic and non-bee terrestrial taxa
- Provide an update on methodology and RTC for final bee assessment
- Highlight strengths (and potential weaknesses) of our assessments
- To provide detailed background scientific information prior to PRD's briefing on risk mitigation strategy

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The goal of this presentation is to provide a summary of the final bee risk assessments

## EFED Neonicotinoid Chemical Teams

Chemical	EFED Branch	Eco	Fate
Clothianidin	ERB 6	Michael Wagman	Chuck Peck
Thiamethoxam (combined document)	ERB 1	Kris Garber Ryan Mroz	Chris Koper
Imidacloprid	ERB 5	Keith Sappington Meghann Niesen Hannah Yingling	Mohammed Ruhman
Dinotefuran	ERB 3	Elizabeth Donovan	Rochelle Bohaty
Coordination and supporting roles		Colleen Rossmesl Frank Farruggia Monica Wait	

# Outline of Presentation

- Neonics RR timing
- Final Bee Risk Assessments
  - What's new since preliminary bee RAs [public comments, new data, nectar equivalents (replaces bee bread method), residue bridging strategy]
  - Lines of evidence considered / strength of confidence calls
  - Risk conclusions (low risk calls; weak, moderate, and strong evidence of risk calls)
- Recap of risk conclusions for aquatic taxa & new Guelph data analysis
- Recap of risk conclusions for birds and mammals
- Conclusions
  - Strengths and weaknesses of risk assessment approaches
  - Next steps

## Neonic Registration Review Timing

- Preliminary Bee Risk Assessments
  - Imidacloprid published January 2016
  - Clothi / thia, dino published May 2017
- Non-pollinator (Aquatic & Bird, Mammal, Plants) RAs
  - Imidacloprid aquatic May 2017; terrestrial December 2017
  - Clothi, thia, dino published December 2017
- Final Bee RAs, RTC, and Proposed Interim Decisions
  - Signatures by June 30, 2019
  - Dockets to open shortly thereafter

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# Deliberative Process / Ex. 5

# Final Bee Risk Assessment

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Moving into the risk characterization...

# **Deliberative Process / Ex. 5**

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# Final Bee Risk Assessment

## Risk Characterization

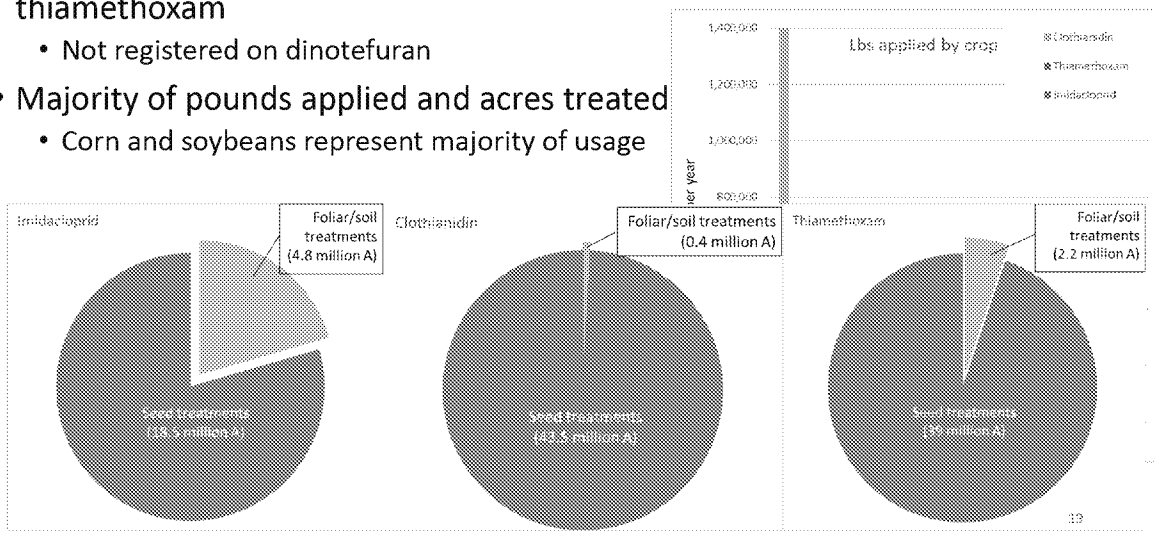
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Moving into the risk characterization...

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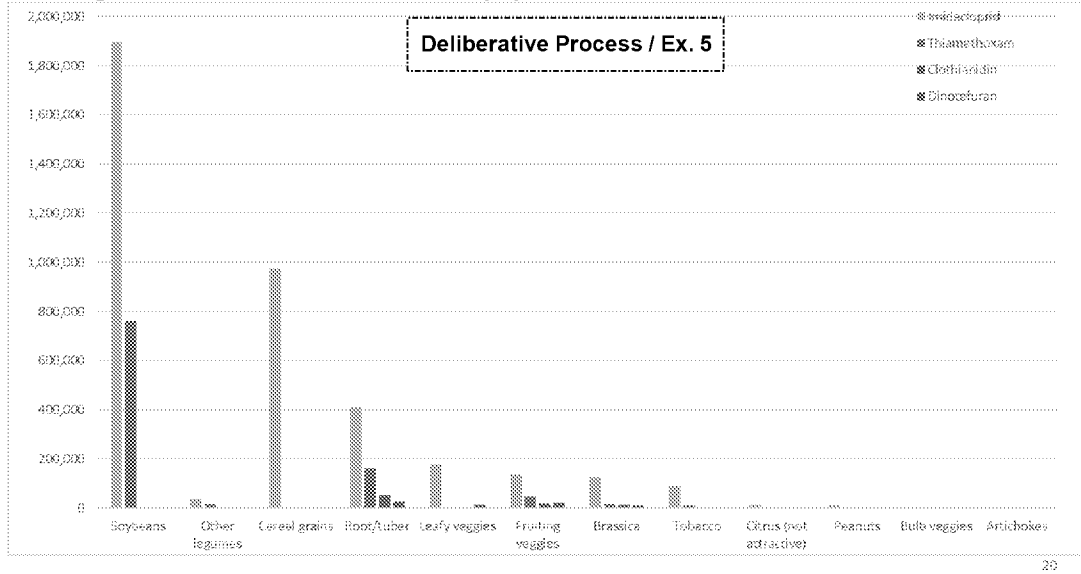
## Seed treatments: use and usage

- Registered for variety of crops on imidacloprid, clothianidin and thiamethoxam
  - Not registered on dinotefuran
- Majority of pounds applied and acres treated
  - Corn and soybeans represent majority of usage



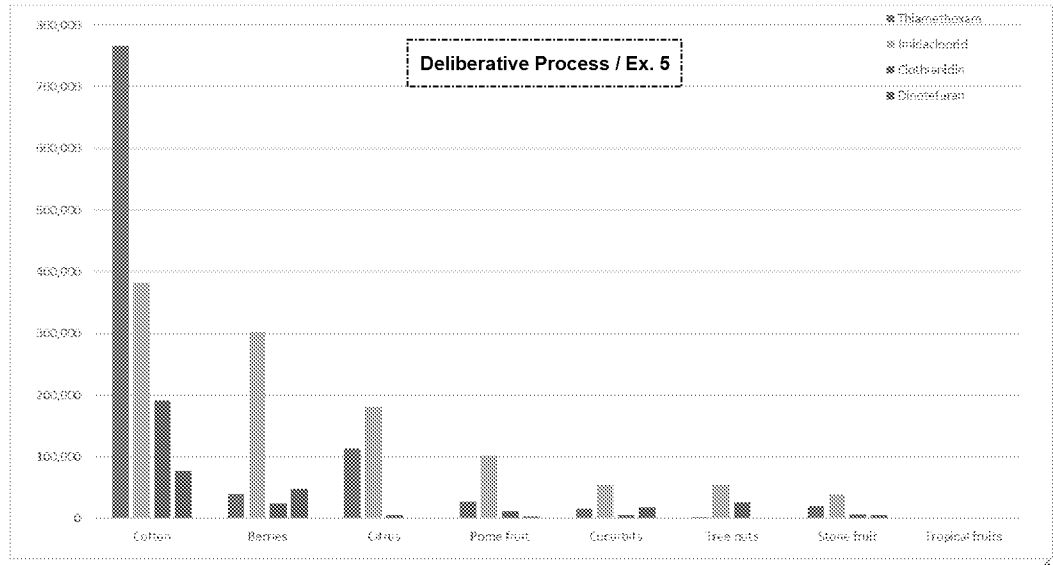
# Deliberative Process / Ex. 5

## Usage for foliar/soil applications



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# Aquatic Taxa Risk Conclusions & New Guelph Data Analysis

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# Bird & Mammal Risk Conclusions

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# Conclusions & Next Steps

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## Other Regulatory Assessments

- PMRA has released final pollinator assessment for IMI
  - Targets specific application methods and timing of certain use patterns

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- EFSA has released seed treatment assessments
  - IMI and CLOTHI are low risk from pollen and nectar residues from oral route
  - THIA inconclusive from oral route
  - Dust-off is high risk for IMI, CLOTHI and THIA

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# Back-pocket Slides



## Use and Usage Information

- Registered on wide variety of agricultural and non-agricultural use patterns
- Applied as seed treatment, soil, or foliar, or as combination of methods
- Max annual rates up to **0.4** (clothi), **0.27** (thia), **0.54** (dino), and **0.5** (imi) lbs a.i/A

Chemical	Estimated annual usage (lbs/year)	Major uses (lbs/year)
Clothianidin	1,500,000	<b>Corn</b> (seed treatment; 1,400,000)
Imidacloprid	1,120,000	<b>Soybean</b> (seed treatment, 430,000) <b>Cotton, Potato, Wheat</b> (all app. methods, 100,000 ea.)
Thiamethoxam	919,000	<b>Corn</b> (seed treatment; 300,000) <b>Cotton</b> (foliar, soil, seed; 160,000) <b>Soybean</b> (seed treatment; 300,000)
Dinotefuran	22,500	<b>Cantaloupes</b> (5,000) <b>Rice</b> (4,000)

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